

Claims

1. A gas transfer hose (22) providing supply and return paths for a pulsed oscillating gas flow for supplying a compressed gas to an equipment (12), and conducting a return flow of gas from the equipment, wherein the hose comprises a inner (30) and outer (32) coaxial hoses defining a first inner conduit (24) and a second circumferential conduit (26) which surrounds the first conduit, one conduit being operable to transfer the compressed gas from a compressor to the equipment and the other conduit being operable to transfer the return flow of gas from the equipment to the compressor.
2. A gas transfer hose according to claim 1 wherein the inner hose (30) is supported within the outer hose (32) by supports (28).
3. A gas transfer hose according to claim 1 or claim 2 wherein at least one of the inner (30) and outer (32) hoses is convoluted.
4. A gas transfer hose according to any preceding claim wherein an outer surface of at least one of the inner (30) and outer (32) hoses is covered in braiding (34).
5. A gas transfer hose according to any preceding claim wherein an inner surface of at least one of the inner (30) and outer (32) hoses is covered in braiding (34).
6. A gas transfer hose according to any preceding claim wherein the inner (30) and outer (32) hoses are formed from stainless steel.
7. A cryogenic assembly comprising a compressor (14) and a refrigerator (12) each having respective gas inlet (44, 46) and outlet (42, 48) ports joined by a gas transfer hose according to any preceding claim.
8. A cryogenic assembly according to claim 7, wherein the first, inner conduit (24) is arranged to conduct the return flow of gas from the refrigerator (12).

9. MRI equipment comprising a cryogenic assembly according to claim 7 or claim 8.

10. A method of operating a cryogenic assembly comprising a cryostat (12), a
5 compressor (14) and a gas transfer hose (22), wherein the hose comprises a first axial
conduit (24) and a second circumferential conduit (26) which surrounds the first conduit,
the method steps comprising the passing through one conduit high pressure gases from a
compressor to a cryostat and passing low pressure, high velocity from the cryostat to the
compressor.

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11. A gas transfer hose, cryogenic assembly or MRI equipment substantially as
described herein with reference to any of Figs. 2-4.